

U.S. Serial No. 10/666,568
Amendment Dated October 6, 2006
Response To Office Action Dated April 7, 2006

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the above-identified application:

Listing of Claims

1. (Currently Amended) An improved method for plating an organic substrate with silver, which comprises:
 - (a) scouring the organic substrate to ~~prepare~~ clean the surface for pre-metallization;
 - (b) contacting the scoured, organic substrate with an aqueous, pre-metallization solution including a tin salt and an inorganic acid; and
 - (c) plating the pre-metallized, organic substrate with silver, which comprises:
 - (i) contacting the pre-metallized, organic substrate with a complexer, such as an aqueous Na₂EDTA solution, for a controlled rate of release of silver and to prevent a rapid bath decomposition;
 - (ii) subsequently contacting the pre-metallized, organic substrate with an additional aqueous, silver salt solution to effect deposition of a silver oxide on the organic substrate, wherein the silver salt solution further includes a complexing agent; and

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(iii) contacting the organic substrate having the deposited silver oxide with a reducing agent thereby effecting formation of metallic silver on the organic substrate.

2. (Original) The method of claim 1, wherein the organic substrate is in the form of fibers.
3. (Original) The method of claim 2, wherein the fibers are woven into a textile.
4. (Withdrawn) The method of claim 1, wherein the organic substrate is in the form of a polymeric foam.
5. (Withdrawn) The method of claim 4, wherein the polymeric foam is an open cell foam.
6. (Original) The method of claim 1, wherein scouring comprises washing the organic substrate with an aqueous cleaning solution.
7. (Original) The method of claim 1, wherein the tin salt is a tin halide selected from the group consisting of stannous chloride, stannic chloride, and mixtures thereof.
8. (Original) The method of claim 1, wherein the inorganic acid is selected from the group consisting of hydrochloric acid, sulfuric acid, and mixtures thereof.
9. (Original) The method of claim 1, wherein the silver salt is a silver nitrate and the complexing agent is aqueous ammonia.

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10. (Original) The method of claim 1, wherein the reducing agent includes an aldehyde functional group.

11. (Original) The method of claim 1, wherein the reducing agent is selected from the group consisting of formaldehyde, rochelle salts (sodium potassium tartrate), hydrazine, dextrose, triethanol amine, glyoxal, inverted sugar, glucose, sodium borohydride, dimethyl amineborane, hydrazine borane and mixtures thereof.

12. (Original) The method of claim 1, wherein the pre-metallization solution omits a water-soluble or water-miscible solvent.

13. (Original) The method of claim 1, wherein the pre-metallization solution, the Na₄EDTA solution, and the silver salt solution omit a surfactant.

14. (Withdrawn) An article having a layer of metallic silver thereon, the article being prepared by the process comprising:

(a) scouring the organic substrate to prepare the surface for pre-metallization;
(b) contacting the scoured, organic substrate with an aqueous, pre-metallization solution including a tin salt and an inorganic acid; and

(c) plating the pre-metallized, organic substrate with silver, which comprises:

(i) contacting the pre-metallized, organic substrate with an aqueous Na₄EDTA solution;
(ii) subsequently contacting the pre-metallized, organic substrate with an additional aqueous, silver salt solution to effect deposition of a silver oxide on the

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organic substrate, wherein the silver salt solution further includes a complexing agent;
and

(iii) contacting the organic substrate having the deposited silver oxide with
a reducing agent thereby effecting formation of metallic silver on the organic
substrate.

15. (Withdrawn) The article of claim 14, wherein the organic substrate further
includes at least one layer of a non-noble metal disposed thereon.

16. (Withdrawn) The article of claim 15, wherein the non-noble metal is copper.

17. (Withdrawn) The article of claim 14, wherein the non-noble metal is disposed
on the metallic silver layer.

18. (Withdrawn) The article of claim 14, wherein the metallic silver layer
comprises at least 5 percent by weight.

19. (Withdrawn) The article of claim 14, wherein the metallic silver layer
comprises at least 10 percent by weight.

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